

# THE SOUTH PACIFIC COMMISSION EDUCATIONAL TESTING

## PROGRAMME

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In common with all developing areas, most of the island territories of the Pacific are faced with financial problems that make universal education a difficult if not impossible goal to achieve at present. In many territories primary education is not compulsory, and in the majority only a limited number can be admitted to secondary schools. For obvious reasons, when only limited numbers are admitted at secondary level, the available resources must be concentrated on those who will contribute most in later years to the development of the territory. Generally speaking, this means those who are intelligent, conscientious, stable pupils for whom there is a good educational and vocational prognosis.

Pupils in academic classes in Pacific secondary schools normally sit metropolitan public examinations (e.g. the Overseas Cambridge Certificate or the New Zealand School Certificate) after three to five years of preparation.

Selection procedures for those proceeding to secondary level in most territories tend to concentrate on the results of academic attainment at upper primary level. Often these tests have not been well constructed, are not representative of the primary school syllabus, are weighted in favour of less important school subjects, and, most important of all, have not been successful in identifying those pupils best suited for further education. School records indicate a heavy drop-out and failure rate; pass rates at metropolitan examination level have been disappointing; and there have not been enough graduates at secondary, tertiary, professional and skilled vocational level to hasten the replacement of expatriates by local appointees at a rate which the optimum territorial development requires.

The crux of the problem, then, appears to be in the selection procedures. Expressions of dissatisfaction and concern resulted in the South Pacific Commission organising a Technical Meeting on Selection and Guidance at Goroka, New Guinea, in 1967. This meeting was attended by senior education officers responsible for selection procedures in Pacific territories. The whole problem was discussed in detail, under the guidance of two consultants skilled in testing and selection principles and practices. As a result of the Meeting, the South Pacific Commission appointed an education specialist who was given the responsibility to assist Pacific territories in the improvement of selection procedures.

In this connection, several basic problems must be faced. In the first place, there is the need to compensate for the unevenness of educational opportunity within each territory - for example the problem of the intelligent child, on some small island, who is culturally deprived and has probably had poor teachers, compared with the child from the administrative centre who may be less intelligent but who has had the advantage of a better cultural environment and better teachers. Secondly, there is the language problem, where the quality of teaching is again uneven, and when many children hear the metropolitan language (which is the language of secondary education)

spoken only in the school - and then it is often of poor quality and limited vocabulary. Thirdly, the length of secondary education must be taken into account. In some schools there is time for remedial work for disadvantaged children before they must face the metropolitan examination - for others the years at secondary school are too few to allow this.

After a careful review of the situation, the decision was made that selection should be based on two criteria - academic attainment in the basic subjects, and academic potential. For preference, both criteria should be in the form of standardised tests, and academic attainment should be based on understanding rather than on mechanical accuracy.

The administration of the selection tests also had to be considered. The Pacific is dotted with small inhabited islands, most of which have at least one school, and many of which have very poor communications. Social pressures weigh heavily on teachers to ensure that children pass examinations. In the important selection tests, therefore, it is necessary to have the tests administered by as few people as possible. Some of those concerned in testing are not trained personnel, and therefore the tests must be easily administered in standardised procedures that are not difficult to follow; and because these testers may be ashore on islands for only a few hours, they must be able to test comparatively large numbers at once. Because of the language problem, the tests of potential need to be non-verbal and as culture fair as possible. Simply administered standardised group tests were therefore indicated.

With these considerations in mind, a large number of existing tests of various kinds were surveyed. Many were found wanting for Pacific conditions. Others seemed more appropriate, were tried, and for various reasons - mainly lack of validity - were rejected. Finally, from experience gained, and from research, a battery of tests was constructed which seemed to cope with the requirements of the situation. The battery comprises the following:

(1) Tests of academic potential:

(a) A test of speed and accuracy

This test is the first in the battery. Results are not significant, but the item is retained as a "settling down" item for subjects, to enable them to overcome nervousness, to direct their attention to detail on the printed page, and to make them aware that time is an element in the test. (In later tests, concentration is on power, the time limit being adequate for most subjects to complete those items within their ability.) Test validity in pilot surveys was increased when this item was left in.

(b) Two reasoning tests based on symbolic material

These comprise series of numbers or letter in logical sequence, the subject being required to give the missing item in the series.

(c) A figure-grouping test

This is entirely non-verbal, and of this type of test, correlates best with academic success in the pilot surveys.

(d) A test of general ability

An adaptation of the Papua-New Guinea Reasoning Series.

(2) Tests of academic attainment

(e) A test of mathematical concepts

This test is based on understanding of the new approach to mathematics. It can be combined, where desired, with a mechanical accuracy test.

(f) A test of English

Still under revision, and based on the vocabulary and structures taught in the widely used Oral English syllabus produced by the SPC Language Specialist, Miss G. Tate.

(g) A test of reading and comprehension

Under construction. Will include word knowledge, speed of reading, general comprehension.

In the selection procedure the results of the tests, reduced to standard scores, may then be distributed on a scattergram, with the mark for academic performance on one axis, and the mark for academic potential on the other. The small number tested make this a feasible method in most territories. Selection procedures are then facilitated, and can be adjusted according to the educational system, and the number of places available in the secondary system. For example, territories with a short span of years before the metropolitan examination would select only those who score well on both criteria; while those with a longer span may include those with high potential and low performance on the basis that there is time for remedial work in the initial years at secondary school.

With these tests, it is recommended that teacher opinion be taken into account (especially in marginal cases) when making final selections. This should be as objective as possible, through the use of a checklist questionnaire which takes into account personality and social factors, attitudes towards study, conscientiousness etc..

The above tests have been used in pilot surveys in 1969. They are now being subjected to statistical checks, to be produced in final form for standardisation and validation in the immediate future. In addition to these tests, after experience with New Zealand Maori pupils and one group of Pacific Islanders, the Raven's Matrices Test is being investigated for use in the Pacific. Particular attention, on the basis of controlled research, is being given to the possibility of improved validity when the Coloured Matrices Test is administered as a practice item some days before the full Matrices

test is used as the test item. Initial results seem to indicate a higher validity with this procedure than with the administration of the full test alone.

The larger territories of the Pacific have developed their own testing services. The South Pacific Commission, for example, was able to draw on the experience of the Psychological Service of Papua-New Guinea; while in Fiji the new University of the South Pacific is directly involved in selection procedures at several levels of education. The South Pacific Commission service is directed mainly at assisting the smaller territories which cannot afford these specialist services, and have not adequate resources to cope with the problem internally. It is hoped to publish a full account of these investigations when final standardisations and validity have been established.